

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: FAIL-SAFE

Report Number: P309285

Luminaire Tested: **24FCZ2-35-UNV-L82765-HRP-CA125-W2A-U-3000K**

Issue Date: 3/3/2020

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.

Test Information

Test Method: LM-79-08
Report Number: P309285
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-20)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 24FCZ2-35-UNV-L82765-HRP-CA125-W2A-U-3000K
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" ACRYLIC SHEET
Light Source: (168) 3000K TUNABLE CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment:

<u>Sample No.</u>	<u>Condition</u>	<u>Description</u>
AS-5443-1	Good	WHITE TWIN R-EVOLVE FLOOD
AS-5443-2	Good	REFLECTOR
AS-5443-3	Good	DRIVER
AS-5443-4	Good	UPPER MODULE
AS-5443-5	Good	LENS
AS-5443-6	Good	DRIVER 2
AS-5443-7	Good	TRIM RING

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2321.0 lumens
Efficiency: N/A
Efficacy: 83.5 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.3 / 1.4
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

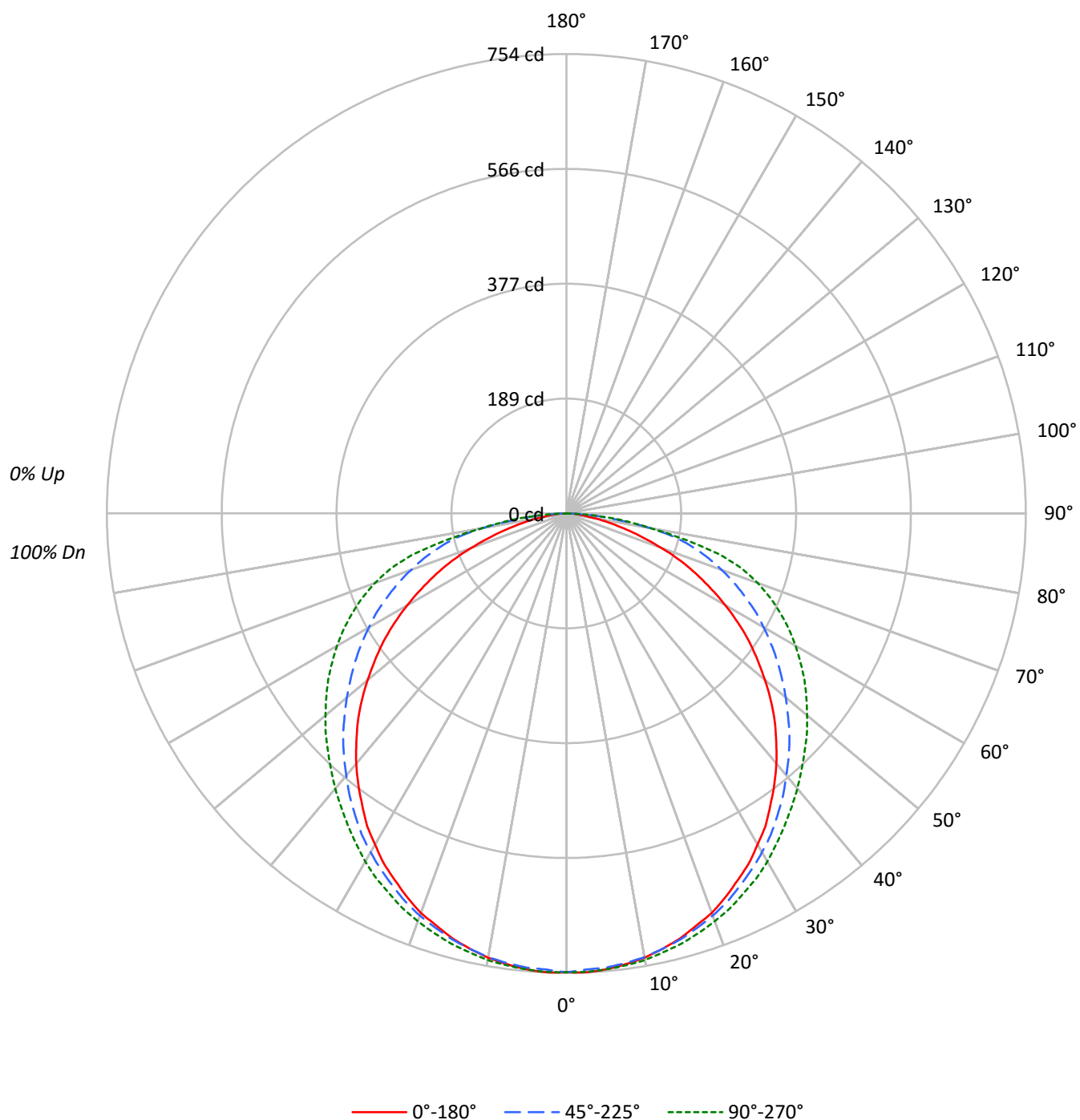
Input Watts (W): 27.8
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20
RC	80				70				50				30				0
RW	70	50	30	10	70	50	30	10	50	30	10		50	30	10		0
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		100
1	108	103	98	94	105	101	96	93	96	93	90		92	90	87		82
2	98	89	82	76	95	87	80	75	83	78	73		80	75	71		67
3	89	78	69	62	86	76	68	62	73	66	61		70	64	59		56
4	81	68	59	52	79	67	59	52	65	57	51		62	56	50		48
5	74	61	52	45	72	60	51	45	58	50	44		56	49	44		41
6	69	55	46	39	67	54	45	39	52	44	38		50	43	38		36
7	63	50	41	34	62	49	40	34	47	39	34		46	39	34		31
8	59	45	36	30	57	44	36	30	43	36	30		42	35	30		28
9	55	41	33	27	54	41	33	27	40	32	27		39	32	27		25
10	52	38	30	25	50	38	30	25	37	30	25		36	29	24		23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1013	1013	1013
5°	1014	1011	1014
10°	1012	1010	1017
15°	1006	1008	1018
20°	999	1006	1020
25°	987	1001	1021
30°	975	998	1025
35°	959	993	1026
40°	942	986	1036
45°	921	985	1052
50°	891	984	1080
55°	859	992	1119
60°	811	1007	1169
65°	748	1030	1234
70°	654	1066	1315
75°	530	1121	1359
80°	391	1099	1099
85°	299	810	915



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	71.3	3.1
10°-20°	204.9	8.8
20°-30°	311.9	13.4
30°-40°	378.7	16.3
40°-50°	400.1	17.2
50°-60°	377.5	16.3
60°-70°	313.9	13.5
70°-80°	206.5	8.9
80°-90°	56.3	2.4
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	588.1	25.3
0°-40°	966.7	41.7
0°-60°	1744.3	75.2
0°-90°	2321.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2321.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	753	753	753	753	753	
5°	751	751	748	751	751	71
15°	722	723	724	731	731	204
25°	665	668	674	686	688	307
35°	584	591	604	620	625	366
45°	484	494	518	543	553	373
55°	366	382	423	462	477	326
65°	235	262	324	371	388	232
75°	102	149	216	256	261	110
85°	19	43	52	58	59	24
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	753.1	753.1	753.1	753.1	753.1
2.5°	754.0	753.1	749.2	753.1	753.1
5°	751.1	751.1	748.2	751.1	751.1
7.5°	746.2	746.2	744.3	748.2	748.2
10°	740.4	740.4	739.4	744.3	744.3
12.5°	731.7	732.6	731.7	737.5	737.5
15°	722.0	722.9	723.9	730.7	730.7
17.5°	709.3	711.3	713.2	721.0	722.0
20°	697.7	698.6	702.5	711.3	712.2
22.5°	682.1	685.0	689.9	698.6	701.6
25°	664.6	668.5	674.3	686.0	687.9
27.5°	648.1	651.0	658.8	671.4	675.3
30°	627.7	632.6	642.3	654.9	659.8
32.5°	608.3	613.1	624.8	638.4	642.3
35°	584.0	590.8	604.4	619.9	624.8
37.5°	560.7	567.5	584.0	601.5	607.3
40°	536.4	544.1	561.6	582.0	589.8
42.5°	510.1	520.8	540.3	562.6	571.3
45°	483.9	493.6	517.9	543.2	552.9
47.5°	455.7	467.4	493.6	523.7	535.4
50°	425.6	440.2	470.3	503.3	516.0
52.5°	395.5	412.0	446.0	482.9	496.5
55°	366.3	381.9	422.7	462.5	477.1
57.5°	334.3	353.7	398.4	441.1	455.7
60°	301.2	322.6	374.1	418.8	434.3
62.5°	268.2	292.5	350.8	395.5	412.0
65°	235.1	262.4	323.6	371.2	387.7
67.5°	203.1	233.2	298.3	345.9	362.4
70°	166.2	204.1	271.1	317.7	334.3
72.5°	132.1	175.9	244.9	288.6	303.2
75°	102.0	148.7	215.7	255.6	261.4
77.5°	74.8	121.5	185.6	199.2	200.2
80°	50.5	97.2	141.9	139.9	141.9
82.5°	33.0	72.9	89.4	100.1	101.1
85°	19.4	42.8	52.5	58.3	59.3
87.5°	9.7	14.6	18.5	19.4	21.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)